6. THE MINES THREAT.

There was One Mines Incident, resulting in the Injury of Six of our Men. This happened in January 1993, when the work was almost finished. One man struck an Air Dropped Miniature Mine, hidden under leaves in a canal, which detonated, causing shrapnel injuries. All the men made a full recovery, so we were very lucky. A Second device was later removed from the same area in a branch of the Kandi Canal.

Two POMZ Mines(Above Ground, on Sticks, detonated by tripwire), were removed from the Zarzoy Canal, close to an old Mujaheddin Post.

A very dangerous TC6 Anti Tank Mine was removed from the Main Road Bridge inside Kama, where it had lain in a hole for some time, while all the vehicles drove round the hole!

UNOCA Demining(MCPA,ATC,RONCO,OMA), have all provided excellent assistance dealing with these and other suspect devices, and in checking suspect areas and canals. They also cleared Three Minefields before we started the project in Aug/September 1992.

OMA gave a Mine Awareness Lecture to all our Men in October 1992, which helped prevent further injuries.

We remain concerned at the number of Cluster Bombs/Mines being found in the hills directly behind our new Base camp.

7. SECURITY

Security in Kama remains excellent, and we continue to have very close Cooperation with the Chief of Security Cmdr Mirza Mohammed. Cmdr Maiwand is Coordinating Water Distribution, and is trying to Control the Use of Guns by anyone taking Water for Irrigation. There have been no shooting incidents related to Water until now.

However on February 1st 1993, there was a Very Serious Security Incident in Nangahar, resulting in the death of Four United Nations Personnel, including two Foreigners.

As a direct result of this , and the Deteriorating Security Situation in Afghanistan as a whole, the UN are reviewing their Position on Funding of Certain Projects, and SCA are very concerned about the implications for the Kama Phase Two. There has been a marked increase in Incidents involving UN and other Aid Agencies in recent months, which are being treated very seriously.
The Project must therefore continue subject to regular review.

The Old and New Base camps have Security provided by Mirza Mohammed, and the Governor supplies Canal Guards/Site Guards as required, supplied with Radios in case of Emergencies.

8. WATER SHORTAGES

There has been great Debate about the Water Shortage in Kama, since the Completion of Phase One of the Kama Project. The Reasons for this are as follows.

a. The Temporary Solution provided by SCA relies on a Temporary Weir storing water in a Static Collection Pool, which then feeds the Canal system with water by Gravity.

A Static source means only 1.0 Cubic Metres Discharge enters the Canal system, which is insufficient for Kamas needs now.

The Fall of the water from the Main River Intake to the Collection Pool(and all the Friction and Seepage losses on the way), is too small for a bigger collection pool to be formed, even if the weir was higher , so SCA had little alternative in its choice of design.

b. The River Level is at its seasonal low point, frustrating our efforts to extract more water, even though we have a 15 Metre Gabion spur in the main river.

c. The Demand for Water is much higher than expected, as Locals have already Cultivated 80% of Kama.

d. Riverbed Erosion in the Kunar has exacerbated the problem.

e. Water Distribution Policy. This has been very bad, with locals refusing to accept the only solution to the Problem, namely to Concentrate water down specific canals on a rotational basis. This system was successfully proved to them by the Area Coordinator, yet they have reverted to the Traditional System of dividing what little water they have between all 22 Canals. The result is obviously that they get minimal water, which cannot reach down the long canals, and then they complain they dont have water. What little they do get is further reduced by Seepage and friction losses. The Area Coordinator and his Engineers will continue their efforts to Improve Water distribution, and will not accept responsibility for disputes directly resulting from this Distribution Policy.

It is worth noting that Kama people have a long History of Fights over Water, and are notoriously inflexible.

9. THE KAMA WELLS PROGRAMME

This work has been carried out under the Control of Qazi Saleem, SCA Technical Advisor. The Rural Development Water Supply Engineers Supervised the work, but the Program was included under the Umbrella of the Kama Emergency Programme.

The Project sought to Construct 20 Shallow Wells in Kama.

Eventually, 28 were Constructed at an average cost of ¤140 each. 25 Wells were dug by SCA, 3 by local people. An Average of 20 Concrete rings(10 Metres) were used in each well, made by SCA at their Base Camp in Behsud.The wells have an average depth of 15m.

DACCAR (Danish Committee) Heavy Duty Hand Pumps were used on 21 of the New Wells, which have proved very good.

The local people preferred new wells, to restoring the old ones, because of suspicion about what may have been put in the old wells by the Russians during the war.

10. <u>KAMA SCHOOLS PROGRAMME.</u>

This work was also carried out under the Control of Qazi Saleem, Supervised by the RDP Schools Engineers, under the Emergency Umbrella.

The Project sought to construct from new a Boys School, and Reconstruct the Girls School at Sangar Saray, in Kama.

The work is expected to be completed within the Budget of 1500,000 Pakistan Roupees(¤ 60,000).

The Boys School provides 13 Classrooms, each 3.6 x 7.0 Metres, and two Offices. Concrete is being used for the Roof Beams(DACCAR supplied), the Roof Slabs,and the floors.

The Girls School provides 8 Classrooms, 3 Offices, and Stores, and is being Reconstructed to Traditional Standards, with a Mud and Timber roof, Concrete Floors, Masonry Walls.

11. <u>KAMA CLINIC PROGRAMME</u>

Controlled by Qazi Saleem, this work is Supervised also by an RDP Engineer.

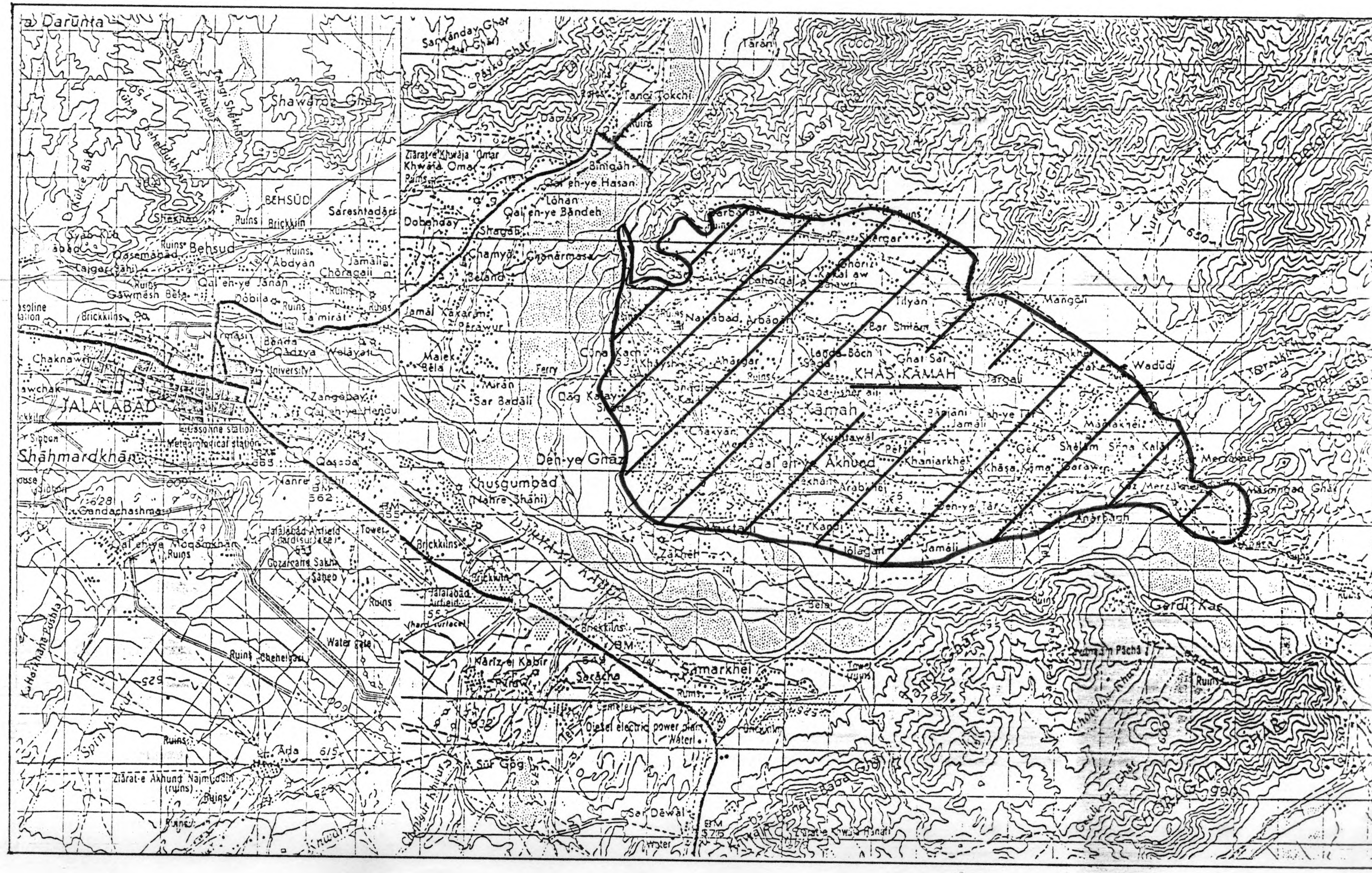
SCA Opened a Temporary Clinic in Kama in September 1992, with Doctor and Medical Supplies. This has been operating from Temporary premises in the District Governors Office .
They have been treating an average of 3000 Patients Monthly, 40% of them Women or Children.

The Proper Clinic Building is being Reconstructed by SCA at an estimated cost of 350,000 Pakistan Roupees (¤14,000).

This will provide 8 Patient Rooms, and 3 Doctors Living Rooms.

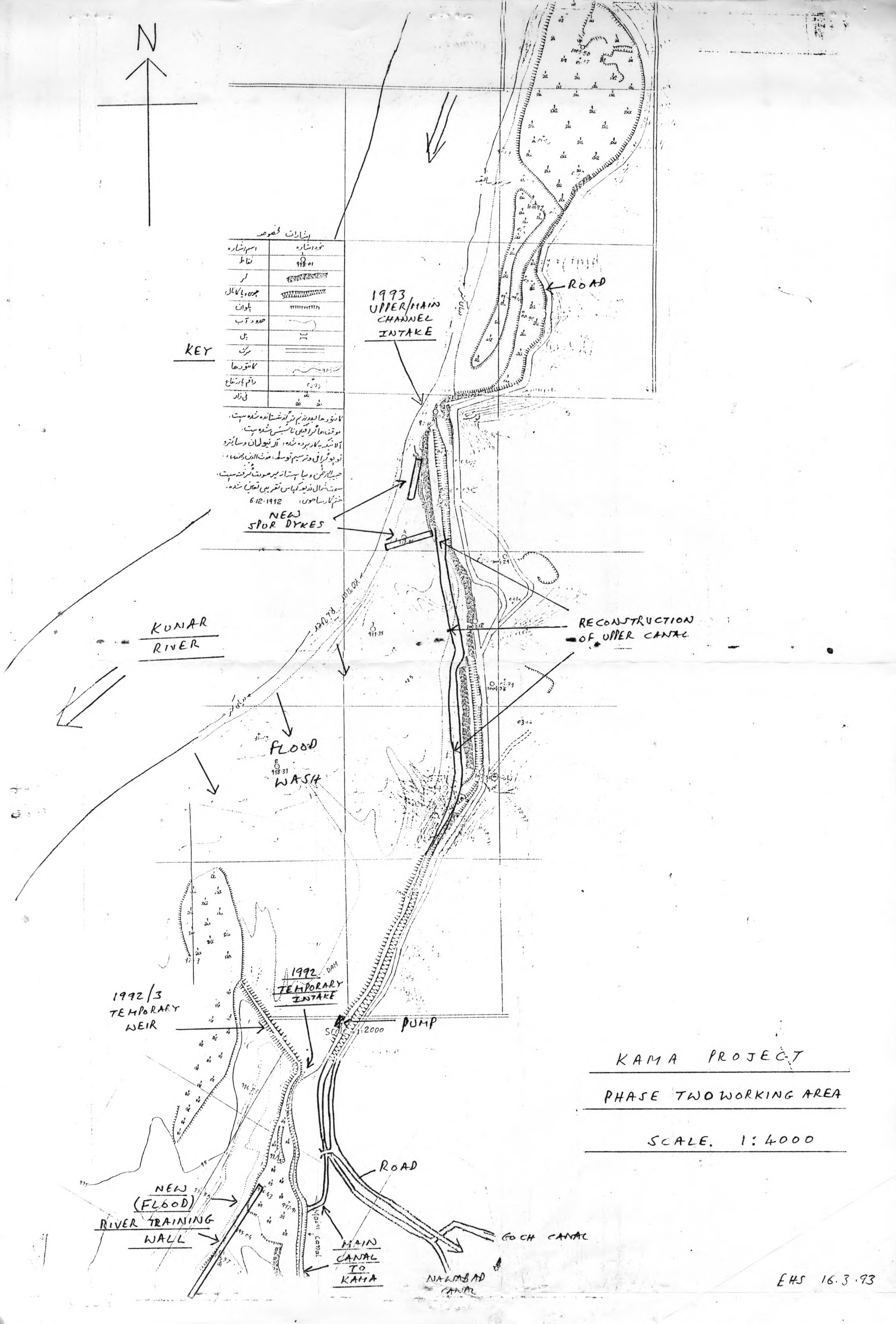
The Construction Materials are Masonry Walls, Concrete Roof Slabs and Ring Beam and Floors.

EDWARD HORNYOLD-STRICKLAND. AREA COORDINATOR FOR THE KAMA PROJECT
20.February 1993



AREA OF CANAL CLEARANCE

KAMA PROJECT PHASE ONE

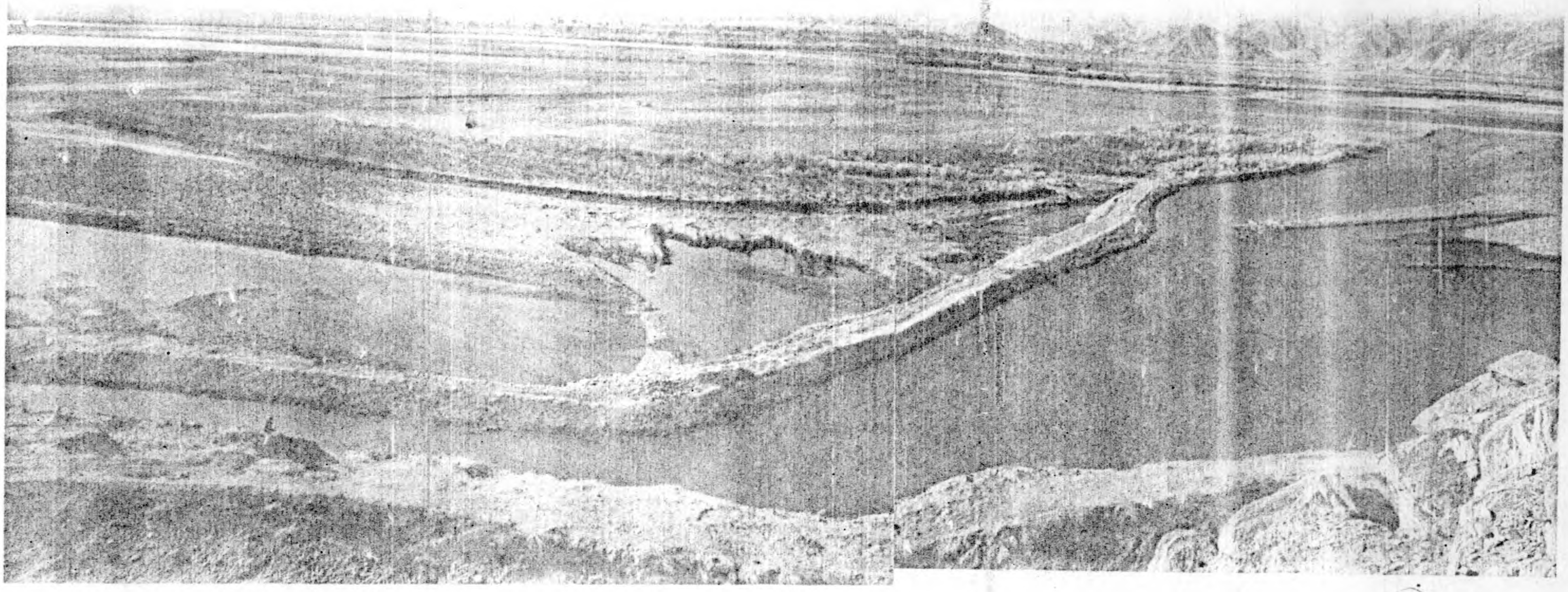


KAMA PROJECT

PHASE TWO WORKING AREA

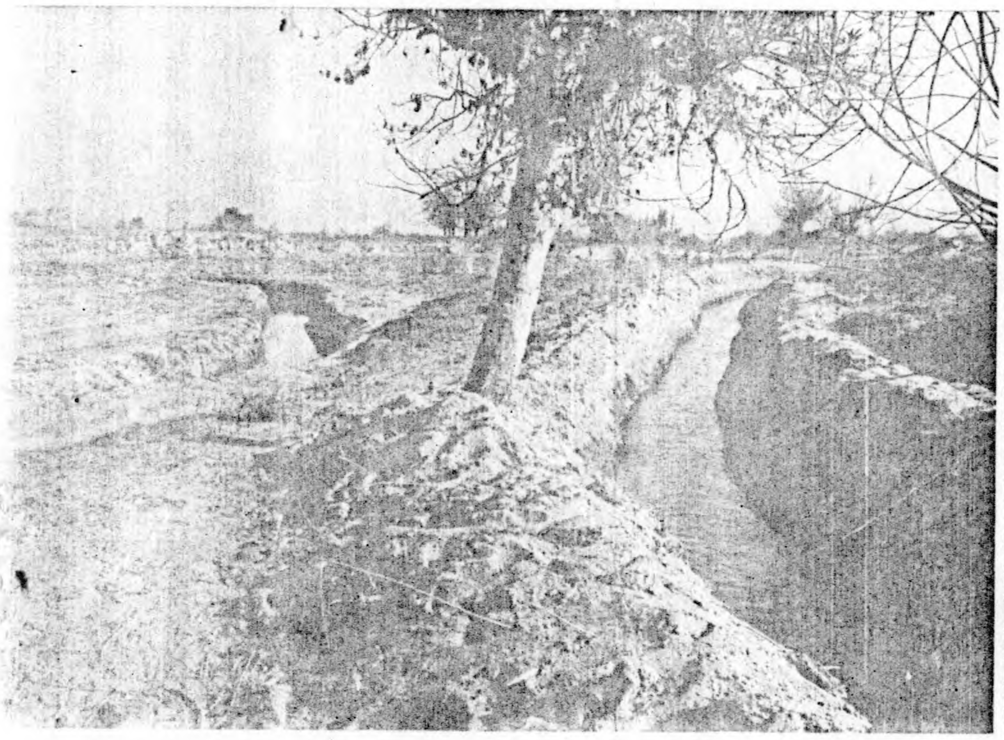
SCALE. 1:4000

EHS 16.3.93

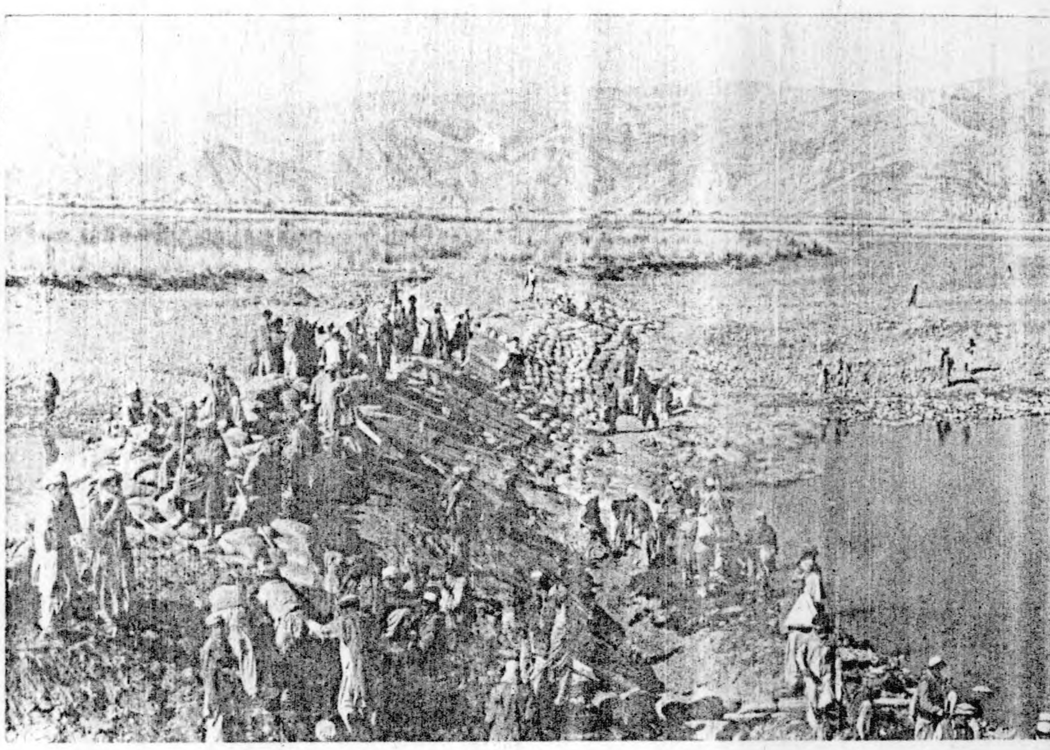


TEMPORARY WEIR

DEHEGHAZI AND MUSTALI CANALS

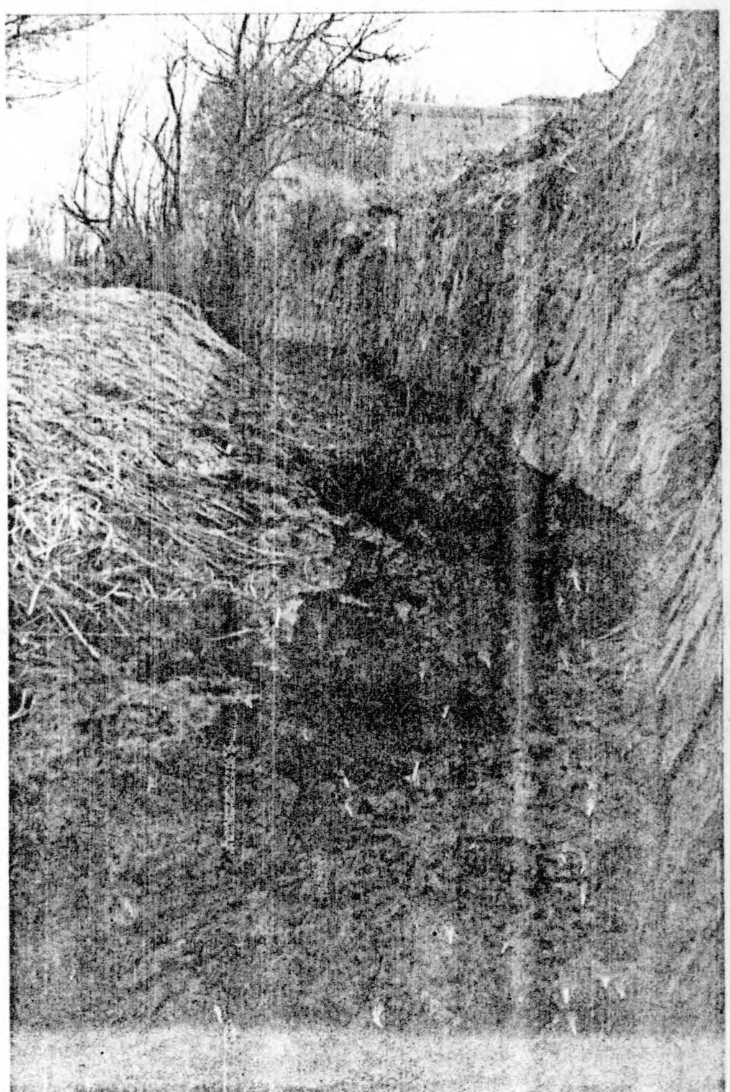


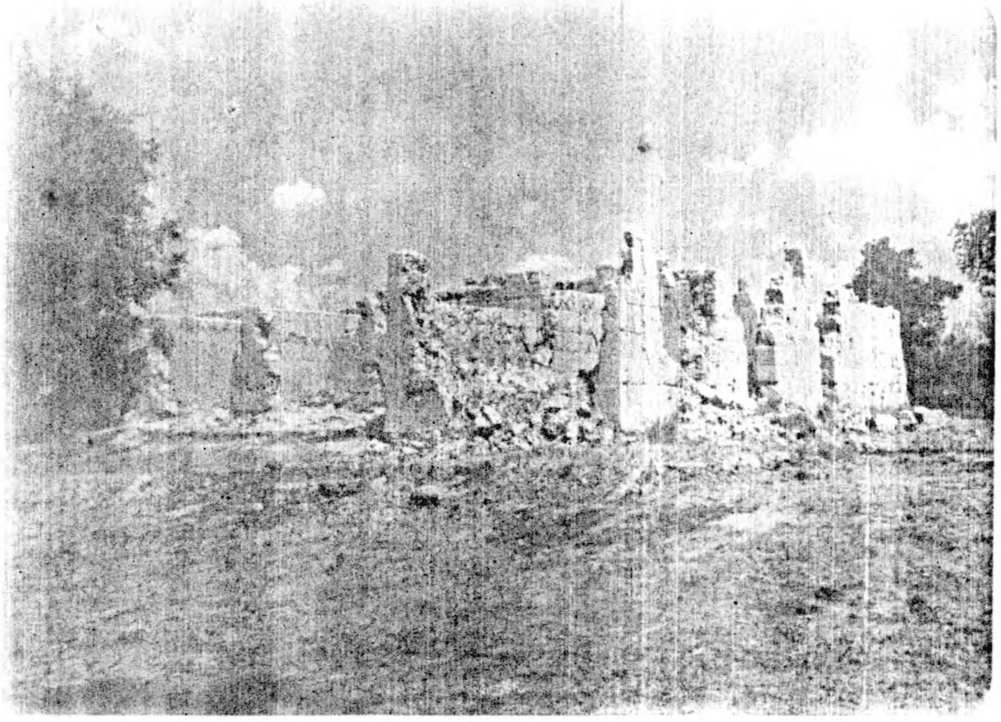
CONSTRUCTION OF WEIR

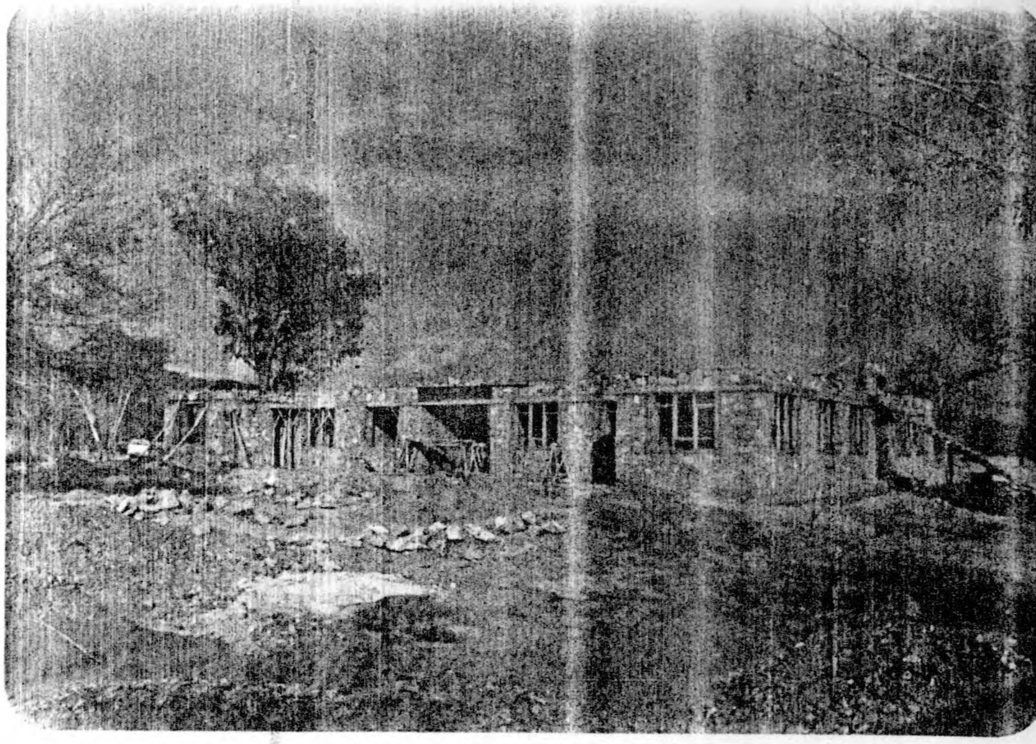


EMERGENCY REPAIR TO KANDI CANAL, AFTER HUGE HOLE APPEARED IN CANAL BED



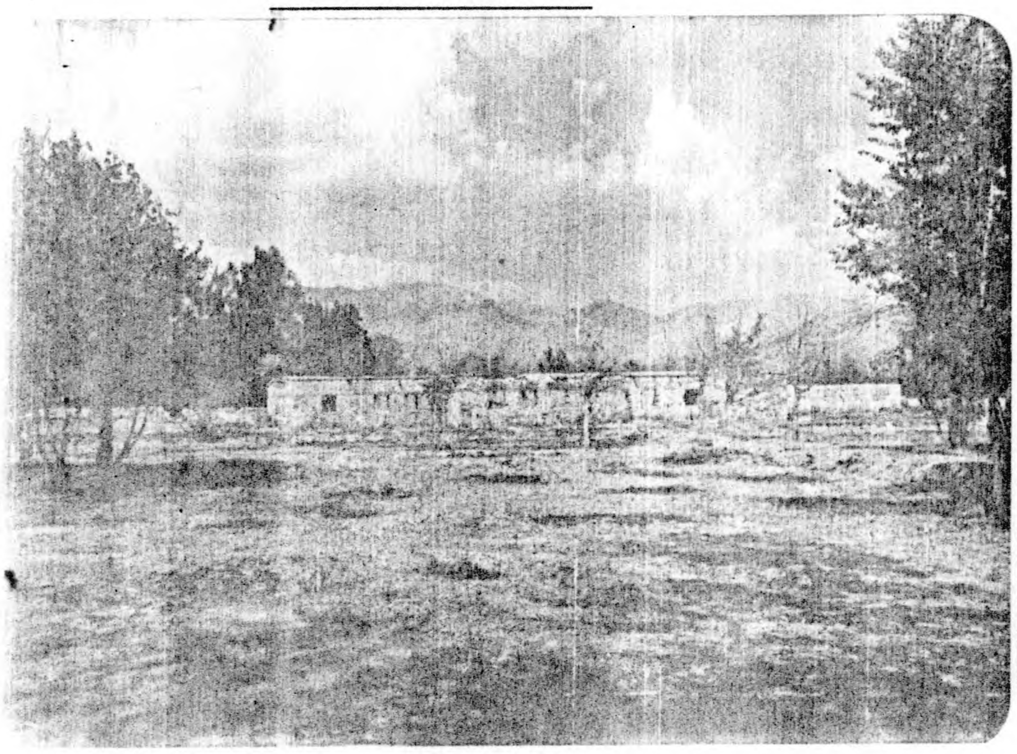


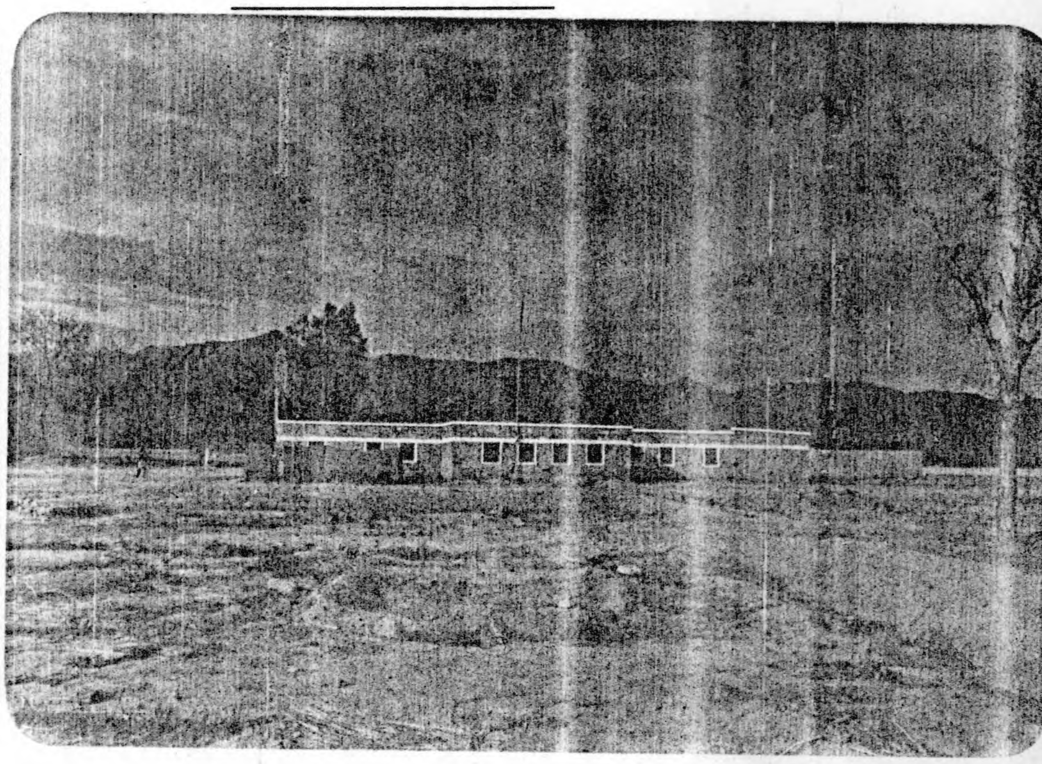




OLD BOYS SCHOOL

NEW BOYS SCHOOL

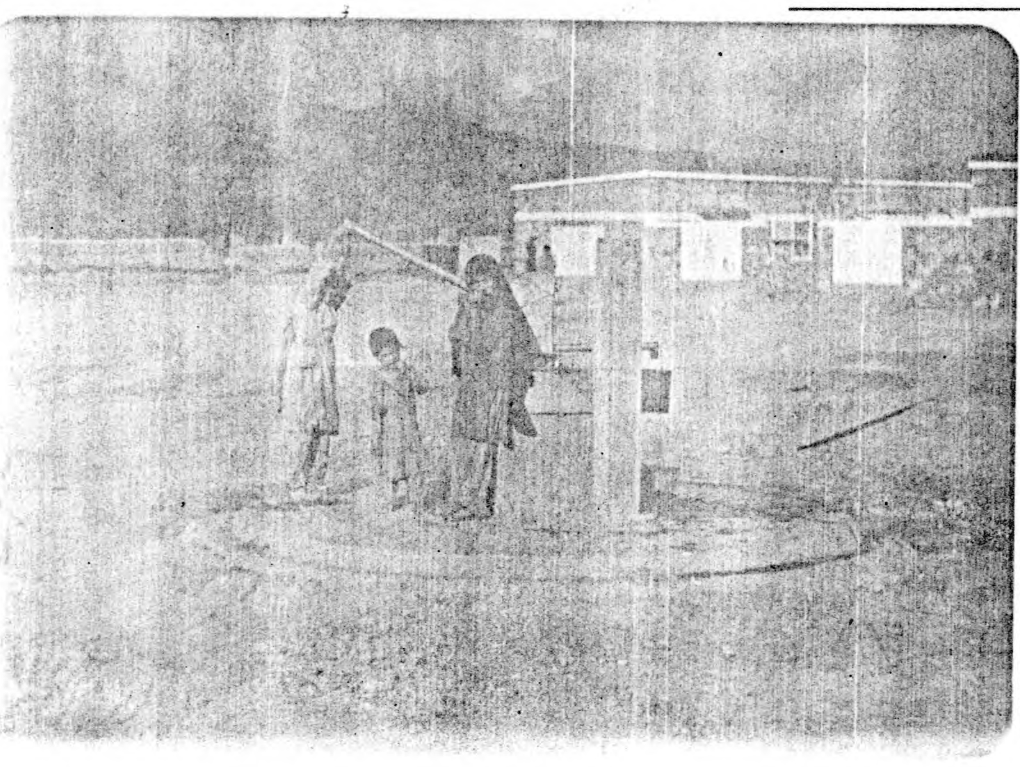


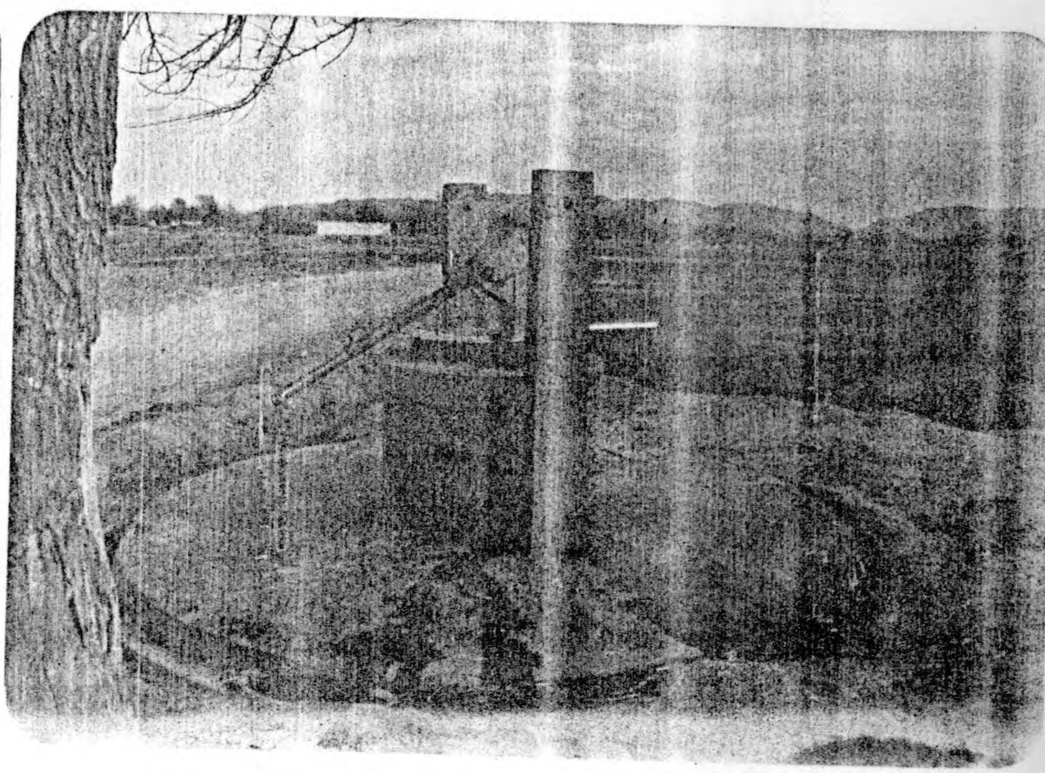


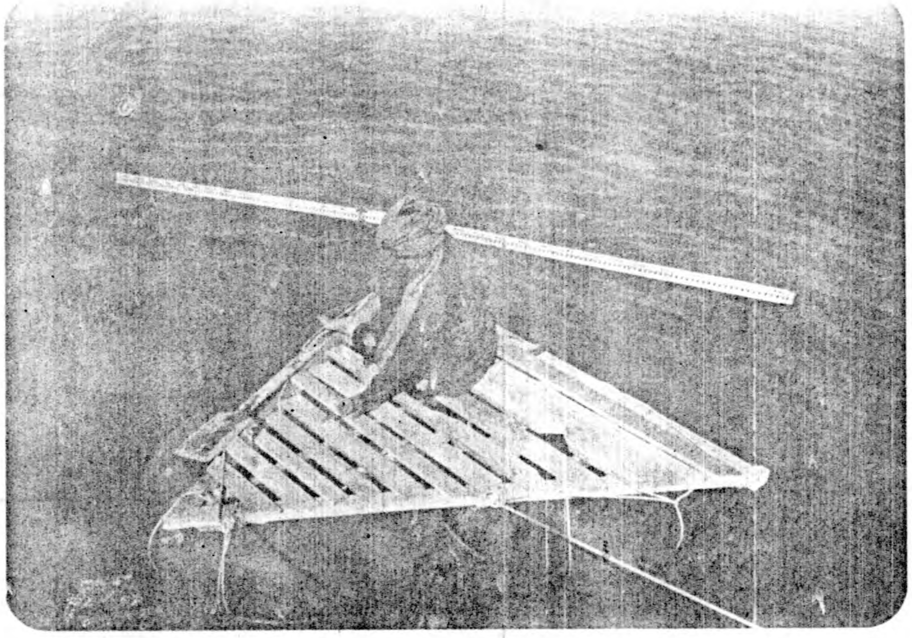
OLD GIRLS SCHOOL

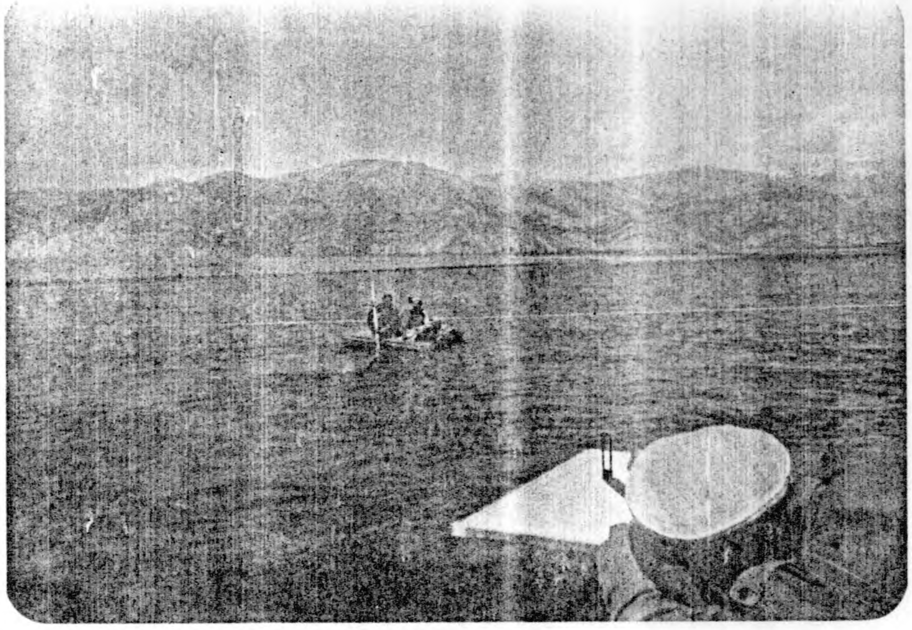
RECONSTRUCTED GIRLS SCHOOL

NEW WELLS IN KAMA

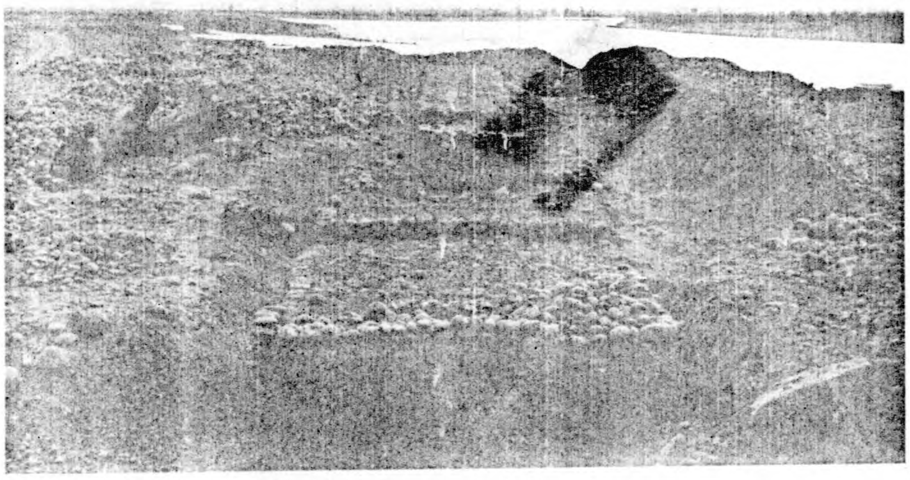




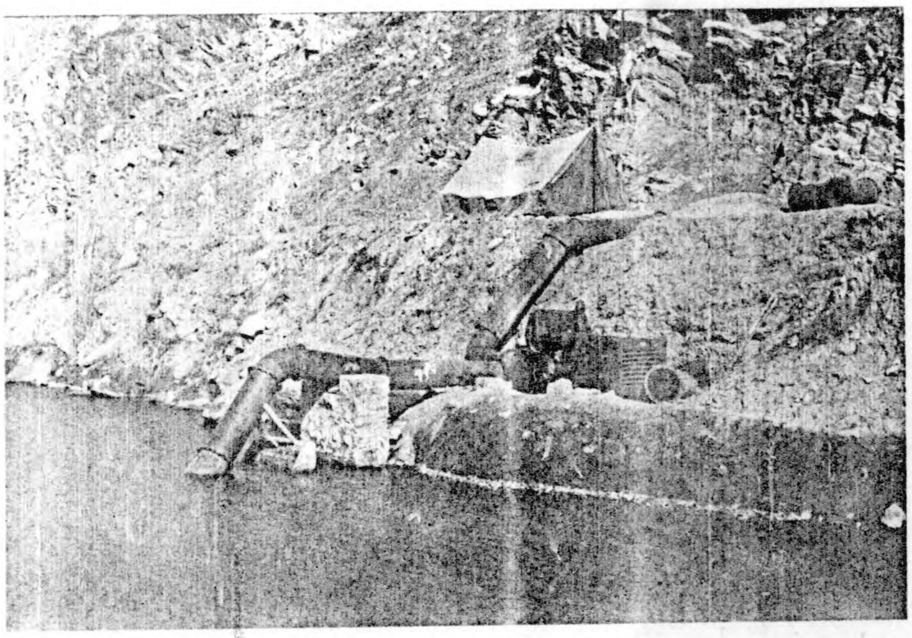




SURVEYING THE KUNAR RIVER

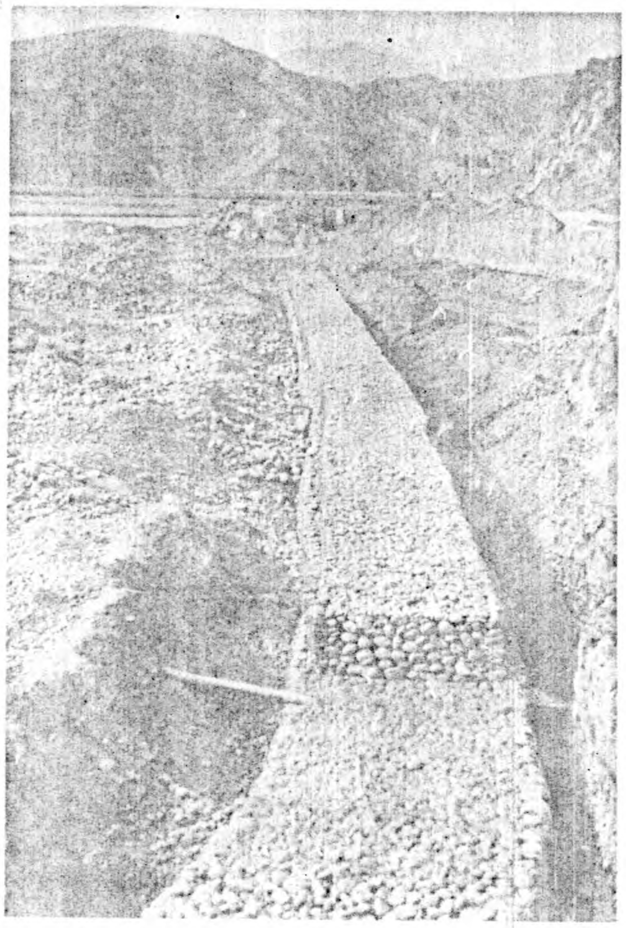


PHASE TWO SPUR DYKE

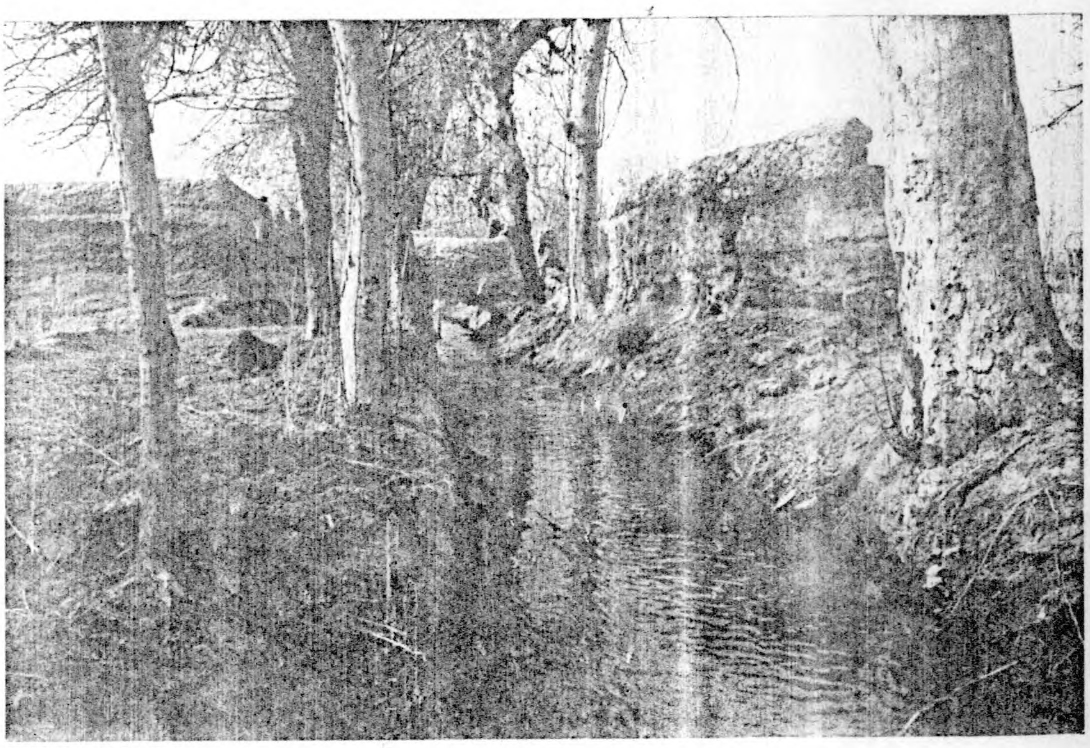


WATER PUMP ABOVE WEIR

PHASE TWO MAIN CHANNEL GABION
WALL UNDER CONSTRUCTION



RUINED HOUSES OVER THE KANDI CANAL



كميته سويدن برائ افغانستان

Swedish Committee for Afghanistan

THE KAMA REHABILITATION PROJECT

IRRIGATION PROJECT/THE CANALS RESTORATION PROGRAMME

WELLS, SCHOOLS AND CLINIC PROGRAMME

SECOND PROGRESS REPORT

PERIOD 16TH OCT 1992 TO 31ST JAN 1993

BY EDWARD HORNYOLD-STRICKLAND, PROJECT COORDINATOR

Office :
57 - C, Gul Mohar Lane
University Town, Peshawar
Pakistan.

Postal Address :
S.C.A.
G.P.O. 689
Peshawar. Pakistan.

Tel : 42218, 40415
Fax : 0521 - 42519
Telex : 52365 SCA PK

CONTENTS

1. SUMMARY

Phase One of the Kama Project has been completed, with the following achieved.

- 200 kms Canals Cleaned , instead of 109 kms Planned.
- Temporary Weir Constructed, 150 Metres long, and five metres high.
- Large Water Pump Installed to provide water to Canals too high to receive water by Normal gravity feed.
- 31 Wells Dug, and lined with Concrete Rings, 21 with Fitted Hand Pumps, instead of 20 Planned.
- Girls School Reconstructed, to provide 8 Classrooms, 3 Offices and Stores.
- New Boys School Built , which is almost finished, to provide 13 Classrooms and 2 Offices.
- Temporary Clinic Established treating 3000 Patients Monthly, 40% of them Women or Children.
- Clinic Building under Reconstruction, to provide Eight Patients Rooms, and Three Doctors Rooms.

Problems faced were/are

- Water Shortages, due to Practical Limitations, and Bad Water Distribution.
- Mines. One Incident only, six casualties, who will all make a full recovery.

General Points.

- Security in Kama very good.
- 80% Kama Cultivated.
- 10,000 Refugees Returned, 60,000 expected Spring/Summer 1993
- Base Camp Moved to new site close to River and Phase Two Working Area.
- A Technical Report will be submitted at the end of the Kama Project Phases One and Two.
- A Detailed Survey of the Canal System is underway, and detailed Notes and Maps will be made available Spring 1993 via SCA, FAO or ACBAR.

Phase Two Project underway. Objective to

- Reconstruct Main Upper Intake Canal, to guarantee water requirements of Kama after Summer 1992, when Temporary Weir will be washed away.
- Carry out River Training Works, namely
  Construction of Two Diversion Spurs/Groins in the River to divert Water away from the Reconstructed Upper Canal.
  Construction of a Guide Wall, downstream of the Weir, to protect the River Bank here.
- Implement Joint Venture Scheme Funded by UNDP, UNHCR, and SCA. Implemented by SCA and ACLU.

A Phase Three Upper Canal Extension being Surveyed, FAO to design, SCA no Commitment. To Compensate for Riverbed Erosion

2. INTRODUCTION

The KAMA REHABILITATION PROJECT has been a very good example of Coordinated Cooperation between a large number of UN Agencies and NGO's. Substantial Inputs were required due to the scale of the Operation Required, and the fact that Kama District was completely Depopulated during the 14 Years War.

Manpower had to be brought back into the area, housed, catered for, and provided with water.

Ninety percent of the Houses were destroyed or derelict, there was no water , and the land was just Wild Thorn, Grass and Scrub, scavenged over by Thousands of Foxes. Prior to the war, this area was known as "Little America", being one of the most productive Agricultural areas in the Country.

THE SWEDISH COMMITTEE FOR AFGHANISTAN undertook this large Project ,after 30 other Agencies failed to make any Commitment, despite 30 Assessment Missions. UNHCR started work on the Intakes, but suspended their Involvement after a Mine Explosion injured two Contractors.

THE KAMA REHABILITATION PROJECT has concentrated on getting the Refugees(In Pakistan) back to Kama, by providing them with Water for Irrigation and Wells, Reconstructing Strategic Wells, providing Wheat Seed (Improved, and "Food for Work" Wheat) , providing Fertiliser and Sugar Cane Rootstocks, and by Rebuilding Two Schools and a Clinic. The Provision of School Materials and a Doctor and Medicine guarrantee the Sustainability of the Schools and Clinic.

A Detailed Budget and Workplan was prepared for Kama, and SCA committed 7 million Pakistan Roupees to what was to become Phase One of the Kama Project.

Soon after the Start of Phase One work, it became clear that other Agencies were not going to Reconstruct the Upper Kama Intake Channel, so SCA have Coordinated Joint Agency Funding for a Phase Two of the Kama Project, which started in December 1992. A Phase Three is being Designed by FAO, to extend this Canal further Upstream, to compensate for Riverbed Erosion, but SCA is only providing Topographical Survey Data for this Project at this stage.

The Swedish Committee signed a Cooperation Agreement with the Governor/Shura of Kama in September 1992 for Phase One, TO BEGIN WORK IMMEDIATELY in Three Main Areas.

1. CANALS. To Clean/Repair 109 Kilometres of Canal, using labour on a Food for Work basis, to be finished by November/December 1992, ready for planting. This would require the building of a large Base Camp for 450 Labourers, storage for 287 Tonnes Wheat, Tents, Cooking Facilities/Bakery, all Logistics, a Management Team and a Water Supply. A Temporary Clinic would also be established. Reconstruction of the District Clinic was added into the Project soon after to provide permanent Premises.

CANAL TEMPORARY INTAKE. To Build a Diversion Dam to get Water into the lower of the two Intakes, which supplied the majority of the Kama Agricultural land.

2. WATER SUPPLY. To Build 20 Shallow Wells for Returnees and the Base Camp Workforce.

3. SCHOOLS. To Build/Rebuild Two Schools, one for boys, one for Girls.

The Area Coordinator took up his position on September 6th, Work to Construct the Base Camp started the same day, and Canal Digging started on 21st September

3. CANAL CLEARANCE PROGRAMME

The Plan was to Restore 109 Kilometres of Canal. We soon established that the Canal system was substantially larger than at first thought, and due to this, and delays getting Phase Two underway, we continued with the Canal Cleaning Programme, until we had completed about 200 kilometres of Canals.

A Detailed Survey of these Canals has been undertaken to plot them, as there is no existing map of the system, beyond the 1:100,000 Scale Maps. The Full Maps and Survey will be Completed in Spring 1993, and made available to other Agencies either through SCA, FAO or ACBAR.

The Majority of Kama Canals are small, averaging only 1.5 to 2.0 Metres wide, but many are up to 15 or more kilometres long. Due to the Intensive Farming Methods before the war however, there are an enormous number of canals, often every 50 Metres. Most of the Canals were easy to clean, but some went through thick Bamboo Jungle, and others were badly blocked with dead trees. The very fine sand, typical in Kama, has been the biggest slowdown factor, as it is difficult to excavate, and creates big dust problems.

A Workforce of 450 Local People was used to do the Clearance work. They are either Returned Kama Refugees, or Refugees who have come over to Kama, and will return Spring 1993 with their Families. They had the Motive to work, and were closely supervised, and the Standard and speed of work was very good.
Towards the end of Phase One Work, their Output decreased considerably, as Motivation decreased and General Fatigue took its toll. Therefore the Workforce was cut to 240 Mid December, as soon as the Canal Programme was largely complete, to be reviewed when Phase Two started.

Kama has 22 Principal Canals, possibly more. All of these Canals have Branches, some very long. There is only strictly One Primary Canal, as both River Intakes converge to the Dehetar Canal. The remainder are Secondary or Tertiary Canals with many Branches.

The Workforce has been operating in Ten Groups under Foremen, and Two Chief Foremen, with our Three Engineers supervising them and all other activities.

A Repairs Team operated for a short time, repairing specific sections , but was disbanded November 1992 as it encouraged too many unrealistic requests for assistance from local people, and was distracting our attention from the main Project aims.

Essential Road Culverts are being replaced at Canal Crossings, to Reconnect the Internal Road System. HABITAT Supplied the Concrete Moulds, and this work will be finished shortly.

<u>Base Camp.</u>

The Base Camp was the Centre of Operations. We Provided Tents, Equipment, Food,and Tools for the Men. Also Wells for water and washing facilities, a large Rubbhall Tent for Wheat and all stores. A Bakery and Kitchen were purpose built on site, together witha Pray Area.

A Large Base Camp Staff dealt with Stores Administration and Logistics, which included ten guards on rotation, provided under an Agreement with Local Commanders.

Detailed Records are kept of all Stores, Work Attendances, and Wheat Distribution, and all Movements of Food or Equipment in or out of the Camp.

Wheat as "Food for Work" was all supplied by WFP/UNILOG, who also Monitor the Project very closely, as it is their largest in Nangahar, and they are very happy with the Achievements, and receive regular Reports from the SCA Area Coordinator.

All Tractors(FAO Supplied), Buses(on Rental), Water Tanker(Supplied by the Military) are based in the Camp, and their daily schedules Coordinated from there.

The Schools and Clinic Sites are at Sangar Saray, the Original Base Camp Location, so the Staff have been providing Food and Accomodation for these Workmen also, which has boosted numbers to a Maximum of 550 Men.

The Base Camp has been moved to a new site for Phase Two Operations, close to the River Intakes. A New Kitchen and Bakery have been built, and the Rubbhall relocated. This Tent was purchased under an Agreement with the Norweigan Refugee Council.
A Stock Check and Clean Up/Fumigation etc has been done by the Base Camp Stores Team, as part of the Changeover from Phase One to Two.

The Rental of Vehicles has been cut to two Toyotas. The Move to a new site, and Concentration of Phase Two activities in one place, gave us this chance to cut cost.

Kama Staffing

There are Three Engineers working in the Field, with specific Responsibilities, or on Monitoring Duty, or dealing with the endless requests for assistance from local people. There are two Chief Foremen, and the Workforce of 450 Men.

There have been up to 31 Men working at the Base Camp, although 10 have been Guards. Their duties are primarily in the Kitchens, Bakery and Stores, but include Wood Collection,Tools Repair and the Mullah!

There is a Four Man Survey Team working Full time on Topographical Surveying, who will also monitor Phase Two Operations, and be available for New Survey Missions/Projects.

Engineers, Surveyors and the Hard Core of the Base camp Staff are paid Local(Afghani) Salaries, at Local Government related Scales. The rest of the Workforce receive Wheat as "Food for Work".
The Basic Wage for Men is 7 kgs per 7 Hour day, 10kgs for Foremen, and most Base Camp staff.

The Expatriate Coordinator Monitors the Project Closely, specifically the Canals and Intake Programmes, making all Policy Decisions, and doing all Reports, Liaison etc. He has a "Hands on" approach to the Project, and is Personally doing the entire Canals Survey on foot, which will be completed Spring 1993.

Dr Azam Gul, Director of SCA Agriculture Department, does a lot of the Political Liaison, particularly with the Kama Shura, and his Contribution to the Kama Project has been considerable.

Volumes Cleared/Technical Aspects

These Matters will all be dealt with in A Technical Report at the end of the Kama Projects Phases One and Two.

4. TEMPORARY INTAKE AREA. THE WEIR AND PUMP

The Weir

The Key to getting Water to Kama for Winter 1992 Wheat Planting was the Construction of a Temporary Diversion Weir.

Kama normally gets water by an Upper(Higher Level) Intake Canal, which was destroyed by River Flooding during the war, and which will be Rebuilt under Phase two.

SCA's only Solution to get Water in less than 3 Months to Kama, was the Construction of a Temporary Weir. This was done in November 1992 under the Supervision of Qazi Saleem, the SCA Technical Advisor, and a 150 Metre, 5 Metre high Structure was made. This Created a large Collection Pool, which successfully resulted in Water entering Kama on 29th November 1992.

A Regulator/Temporary Sluice was Constructed to FAO Design to Control the Water entering, although there has been little need for this, as the Main River Level has gone down daily since, and Modifications are now necessary to Create a Sufficient Working Area for Phase Two Operations.

The Weir suffered Damage on December 10th, as a result of a Pressure Collapse. This was caused by Selfish Locals trying to Force Water into the (High Level) Deheghazi Canal System. They posted four Armed Guards on a Thursday night at this Intake, and blocked the Canal, causing a Build Up in the Collection Pool.
They had been well warned of the dangers of this. Unless Water in the Collection Pool moves out at the same rate it comes in, it leads to an enormous build up in pressure on the Face of the Weir, which was not strong. Fortunately, the Area Coordinator and Chief Engineer visited Kama on Friday, and spotted the Collapse just in time to prevent a Total Collapse.

The Weir was subsequently repaired, and very substantially reinforced, and we have had no problems since. Heavy Duty Plastic was incorporated into the Weir, buried well below river bed level, and this has helped minimise Water seepage.

We estimate that the Discharge from this Collection Pool is only 1.0 Cubic Metre per second, as it is a static source, which is one factor why the weir has only provided a Partial Solution to the Water Problem in Kama. (See "Water Shortage" Below").

PUMP

A Large Capacity Russian Pump has been installed recently above the Collection Pool, to pump water up into the Upper Intake Canal. Its Capacity is 400 - 700 litres per second.

This will provide water temporarily to the Goch and Nawabad Canals, which are directly supplied by this Canal, to be Reconstructed under Phase two. It may also be used to provide water to Cuna Kach, Soda Kalay and Deheghazi Canals by means of a Flume, all of which are on higher land.

The pump can also be used to divert pressure away from the face of the weir, drain the Collection pool, or possibly increase the Net amount of water entering the Canal System.

5. PHASE TWO AND FUTURE PROJECTS

Phase Two of the Kama Project is the Reconstruction of the Main Upper Intake Canal, and River Protection Works comprising a Guide Wall and Two Groins/Diversion Walls in the River to Prevent Flood Damage.

This is a very big Project, costing around ¤370,000, Plus Wheat. The work will be undertaken by ACLU (Afghan and Construction Logistics Unit) and The Swedish Committee Workforce. Funding is from UNDP , UNHCR and SCA as a Joint Venture, Agreements still to be finalised.

This Intake provides the Main Water for Kamas Irrigation System, and is essential to provide water after Summer 1993, when the Temporary Weir is expected to be washed away by the Kunar Floods.

10,000 Refugees have already returned, 80 % of Kama is already Planted/Cultivated, and their future and that of the 70,000 Remaining Returnees (Due Spring 93) all depends on the Success of Phase Two.

A Phase Three Extension of the Upper Canal further Upstream is to be Designed by FAO, and SCA are providing Topographical Survey Data in this respect. This Phase Three is necessary to Compensate for the fact the Kunar River has eroded its River Bed. We cannot lower the Upper Canal Intake, if we are to retain the fall needed, so must extend the Canal a further 700 Metres at least in 1993/4. SCA has made no Commitment at this stage to be involved in a Phase Three Project.